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SCIENCE FEATURE

SCIENTIFIC STUDY TEAM OUTLINES PLANS FOR NATIONAL FISHERIES CENTER AND AQUARIUM

Age-old puzzles of why fish leap for a man-made lure one day and ignore it the next, how pollutants kill certain fish and permit others to survive, and how the temperature, salinity, and other conditions affect fish growth will be included in a wide range of scientific studies at the National Fisheries Center and Aquarium in Washington, D. C., amid eye-appealing surroundings that will bring millions of visitors yearly to wonder at the miracles of aquatic life.

Such is the concept being developed by a group of leading marine scientists and aquarium experts who have made their first recommendations to Secretary of the Interior Stewart L. Udall on features that should be included in an educational-scientific complex which will rank as the foremost laboratory of its type in the world.

The study group, headed by Dr. John C. Calhoun, science advisor to Secretary Udall, said the center as well as its equipment should feature the theme, "The Living World of Water," and that it should be designed to fill effectively a dual role of satisfying the general public demand while simultaneously encouraging educational and scientific advancement.

Members were enthusiastic about prospects for success of the project that is planned to repay the Federal Treasury its entire construction and maintenance cost over a thirty-year period. They said aquariums throughout the world are enjoying increased popularity and agreed with the forecast that the new center in Washington should attract at least three million visitors a year.

To assure a balance between esthetic and scientific appeal at the center, the study team membership includes William Walton, chairman of Washington's Fine Arts Commission, and Karel Yasko, chief architect for the General Services Administration.

Against a scientific background, the study group said, will be a series of carefully planned exhibits based on "The Living World of Water" theme and bringing to visitors a closeup view of hundreds upon hundreds of live specimens in near-natural surroundings. One such display, for example, would trace aquatic life in the Nation's largest river system, the Mississippi-Missouri from its birth in Yellowstone Park to full growth as it reaches the Gulf of Mexico.

Planners said visitors will be treated to a seemingly endless series of live displays featuring the antics of otters, porpoise, and sea lions; the horror of sharks, octopus, and great alligators; the charm and beauty of tropical fish; the great size of groupers and turtles; and the strangeness of lung-fish, electric eels, four-eyed fish, and blind fish. One avenue of tanks will emphasize saltwater life, another fresh-water specimens.

Studies of why fish are capricious in responding to various lures are not a whimsical approach to research, Dr. Calhoun said, for favorable findings as to the appeal of different spinners, flies, spoons, and baits can make sport fishing more popular, adding to the millions of people already enjoying this form of outdoor recreation. He added that development of new facts in sport fisheries can also be of significant aid to commercial fishing.

Pointing out that Washington is the center of medical knowledge in the United States, the advisory group said studies at the national aquarium can be coordinated ideally with those at public health research facilities, including laboratories engaged in cancer research.

Many other fishery-based research projects are envisioned for the center. Typical ones would include the effect of water salinity and temperature on fish, the ability of certain fish to withstand pesticides and other harmful chemicals, the reaction of various fish to sudden changes in surroundings, types of food that promote growth and stamina, development of superior strains of commonly known sport and commercial fish, and more effective ways for tagging aquatic life to trace migrations and survival rates.

A center dedicated to "The Living World of Water," said the study team, "can be a unique institution that will provide opportunities for research that cannot be undertaken elsewhere; it will serve as a national and international center for research in marine and fresh-water biology."

The center is to be at Hains Point in East Potomac Park in Washington. It will be bounded by waters of the Potomac River on one side and the Washington Channel on the other.

In addition to Dr. Calhoun, Mr. Walton, and Mr. Yasko, other members of the advisory group for the center are:

Dr. James W. Atz, former curator, New York Aquarium; Dr. Wilbert M. Chapman, director, Van Camp Foundation, San Diego, Calif.; Charles Eames, designer, Venice, Calif.; William Hagen, chief, Branch of Fish Hatcheries, Bureau of Sport Fisheries

and Wildlife; Dr. Earl S. Herald, Superintendent-curator, Steinhart Aquarium, San Francisco, Calif.; Sam Hinton, Scripps Institution of Oceanography of the University of California; William B. Kelley, director, Cleveland, Ohio, Aquarium; Dr. J. Laurence McHugh, chief, Division of Biological Research of the Bureau of Commercial Fisheries; Murray W. Newman, director, Vancouver, B. C. Public Aquarium; Joseph W. Penfold, conservation director, The Izaak Walton League of America, Washington, D. C.; P. Craig Phillips of the Bureau of Sport Fisheries and Wildlife, former curator of the Miami Seaquarium; Dr. Roger Revelle, director, Scripps Institution of Oceanography and Dean of Research, University of California; Dr. Milner B. Schaefer, director of Marine Research, Scripps Institution of Oceanography; Dr. Athelstan Spilhaus, chairman, National Fisheries Center and Aquarium Advisory Board and Dean of the Institute of Technology, University of Minnesota, Minneapolis; Irving Lehman Straus, New York City, member, National Fisheries Center and Aquarium Advisory Board and former president of the Westchester Aquarium; Robert E. Vaughan, assistant to the Under Secretary of the Interior; and Dr. Warren J. Wisby, research scientist from the Marine Laboratory, Miami, Fla.

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